An Epitome of Duck Culture

As Practiced on the

Orroco Poultry Farm.

Being a brief and concise Treatise on the Care of Breeding Ducks, Selection and Management of Incubators and Brooders, and Treatment of Ducklings from Shell to Griddle.

By

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Boston, Mass.

For the Benefit of their Customers.

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More money can be made from ducks than from any or all other poultry combined, but they are such voracious creatures that unless proper judgment and economy are exercised in their management, they become a source of actual loss instead of profit. All large breeders of any note, now concur in the opinion that the Imperial Pekin Duck, everything considered, is more profitable than any other.

Breeding ducks require very little or no whole grain, especially corn. If desired to give them dry grain once a day, there is no serious objection to it, but we should prefer cracked corn, oats or wheat, or a mixture of all three. During the fall and early winter, they can be kept cheaply and very well, by feeding three parts of brewers grain and one part Indian meal, adding five per cent. ground scraps. If brewers grain cannot be readily obtained, use boiled cheap vegetables, such as refuse turnips, small
potatoes, etc., mashed and mixed with twice their bulk of Indian meal and shorts, equal parts by measure, and the proportion of ground scraps before named. As the egg season approaches, less shorts and more scraps should be used, and an occasional addition of a little bone meal is then excellent. The quantity of scraps must depend upon its effect on the stock. It is desirable to gradually increase it to fifteen per cent., unless it produces scouring, in which case the quantity must be diminished. In our dealings with the larger hotels we can make very satisfactory contracts for a plentiful supply of stale bread which we use in place of shorts, by soaking it thoroughly in hot water in winter and cold water in summer, then draining or squeezing it as dry as convenient and thickening it with Indian meal, adding scraps in quantity depending upon the circumstances before stated. Green food must be supplied in abundance to secure fertile eggs and other desirable results. When it has not been practicable to previously provide green rye to be used before anything can be grown in the open air, refuse cabbage will do very well. Even apples chopped fine need not be dispised—but the breeder should make strenuous efforts to furnish green food in some form if he expects the highest success, and at such seasons of the year as green oats or sweet corn fodder can be cut fresh and chopped fine, nothing equals this for one daily ration. An unfailing supply of ground oyster shells should be constantly within reach of the ducks, and the receptacle containing it should never be allowed to become empty.

The breeding stock should have comfortable, sheltered, dry, clean quarters and faithful, common sense care, to induce early laying and fertile eggs, as one early duck is worth at least two late ones. One drake to five ducks is about right during the spring and the flocks may consist of from twenty-five to forty according to circumstances. If given suitable
yards of perhaps 2000 square feet to flocks of say 35 and furnished with shade in hot weather, either natural or artificial, they will do better than with unlimited range. No water is necessary except for drink, and of this they must have an abundant supply, but should reach it by thrusting their heads between perpendicular slats or some similar arrangement to prevent wetting themselves and the floor of their apartment. Pekin ducks are naturally very timid, and therefore all our movements while attending to them should be gentle and moderate. They should be kept as quiet as possible and never frightened. Even a dog running within twenty feet of their yards has been known to result in the death of several in a flock, simply by the others rushing over and trampling them in their fright.

If we have in our flocks any very superior specimens which we wish to keep over for breeding stock another year, it is an excellent plan after the hatching season, to turn them "out to pasture" so to speak, by giving them unrestrained liberty and unlimited range, letting them recuperate by wandering over fields and through orchards at pleasure for two or three months. They will forage most of their living, require but little feeding and when again returned to winter quarters will be as good as new and ready for the next campaign.

HATCHING.

We would never use ducks for hatching, as they are poor clumsy mothers. If hens are employed, no advice from us is necessary. Where incubators are used, the instructions which accompany all good machines are so explicit, that but few additional are required from us here. In selecting a machine, care should be taken to choose one which is not too unnatural or quick in its operation, as the sudden opening of large ventilators, which allows the moist air in the egg chamber to escape and as suddenly
supplies its place with dry cold air from without, to escape again in its turn, just when in the proper condition to remain, has a most disastrous effect upon the embryo, toughens the membrane within the shell and seriously impairs the hatch. Many of the ducklings will never get out of the shell, and a large proportion of those which by reason of unusual vigor manage to hatch, enter the world with constitutions so enfeebled or nearly destroyed that they cannot be profitably raised to market age, and are therefore worse than worthless.

MANAGEMENT OF INCUBATORS.

The best place to use an incubator is in a good cellar, because there the temperature is comparatively uniform and not cold enough to injure the eggs when taken from the machine. The more uniform the temperature of the room, the better success in hatching. The room should not be below 40 Fah. and 50 is still better. Use the best kerosene procurable, both for your incubator and brooders. Have your incubator running correctly at 100 with thermometers in the trays, before placing the eggs in it, after which do not again touch them nor open the machine for at least 24 hours, 30 will do no harm. Lay your thermometers on the eggs and in such a manner that they can be read through the glass doors while they are closed. Keep the egg chamber at 102 as now indicated by the thermometers, during the entire four weeks of hatching. Do not adopt the idiotic idea so often advanced by mere theoretical writers, or ignorant, unpractical and unprincipled incubator manufacturers, or unsuccessful breeders, neither of whom ever raised a thousand ducks in their lives, that the temperature should be decreased towards the close of the hatch. If any difference in temperature was then desirable, it would most surely be in favor of increasing it during the last few hours. Select a convenient hour when you can best attend to the
incubator regularly, and turn and air your eggs twice a day. If for instance, 7 o'clock suits you best, then let it be 7 A. M. and 7 P. M., as nearly as possible.

Take a tray from one end of the machine, place it on a table of proper height prepared and located for the purpose, and close the incubator door instantly. Here is where many fail — by airing the egg chamber as well as the eggs. Avoid all stereotyped exploded notions of turning your eggs by placing an empty tray over a full one and inverting both. It is unnatural, and whatever is unnatural is wrong. Simply take a few eggs from each end of the tray and pile them on those in the centre, then gently roll those in the centre towards both ends, letting those just piled on top drop into their places, and your eggs are turned in the very best possible manner. It has taken you not over a minute, and if your incubator has been running steadily at not over 102, the eggs are already sufficiently aired and the sooner they are in the machine again the better. In returning the trays however, be sure to change them end for end, and also change their places or positions in the machine so that they will not occupy the same ones throughout the entire hatch. This is essential and of course involves taking a second tray from the incubator before returning the first. Do not be eternally opening the machine to inspect the thermometers, for it deranges the temperature of the egg chamber and ruins the hatch. Never leave the incubator open longer than absolutely necessary to remove or return a tray. Use no moisture in your machine during the first three days. If it is a large one having four evaporating pans, introduce one the fourth day, another the tenth, another the sixteenth and another the twenty-second. We cannot in this brief treatise explain why. Those desirous of knowing more particulars are referred to our other writings.

Duck eggs can be correctly tested by an expert on
the third day after placing them in the machine, and perhaps sooner, but persons unfamiliar with the business had better defer it until the fifth day, when the fertile ones will very plainly show a small central spot indicating that the germ has started. All clear ones should be removed from the machine. Test again say on the tenth or twelfth day and if any have made no progress since the first testing, they too should be removed. The cheapest and best egg tester we know of is represented in the figure, and is simply a tin pipe to slip over the chimney of a kerosene lamp. Should be a trifle larger than the chimney with a 3-4 inch hole opposite flame and a few smaller ones near bottom to prevent chimney from breaking. To be used in a darkened room. An expert takes six eggs at once, three in each hand, and rapidly passing them before the flame can easily test five hundred eggs in fifteen minutes. Any tinsmith can make one for a few cents.

During the last few days of incubation, and especially the last few hours, secure all possible moisture. If the evaporating pans fail to provide enough, it can be obtained by using wet sponges, damp sawdust or similar means. If vapor runs down the glass doors, so much the better. The heat required in the egg chamber to successfully complete the hatch, is by far too much for the ducklings already hatched, and they should be placed in the nursery below as soon as dry and strong, but do not open the machine every few minutes to do this—let once in four or five hours suffice.

When ducklings are hatching, do not disturb the machine or the eggs further than to see that the
pipped side is uppermost, for if left underneath, the duckling will be pretty sure to die. Remember ducklings hatch slowly and are sometimes 24 or 36 hours or even longer in getting out of the shell, but do not hurry nor assist them except perhaps to free their heads and necks if necessary, after which their progress into the world is rapid.

**CARE OF DUCKLINGS.**

Ducklings should not be removed from the nursery of the incubator for at least twenty-four hours after being hatched, and during this time they require neither food nor drink. A flat bottomed basket warmly covered in cold weather is as good as anything for removing them to the brooders, upon reaching which, they should be fed and watered. The best food we know of for newly hatched ducklings, is johnny-cake which every housewife knows how to make, crumbled and fed dry, or soaked in milk. We prefer it dry. It is not necessary to make it in the most approved style, but it can be composed of say half Indian meal, one quarter oat meal and one quarter shorts. If infertile eggs from the incubator are to be fed, they should be boiled much longer than usual, (an hour is none too long) then chopped fine and mixed with four or five times their bulk of crumbled johnny-cake. Having used up all the eggs and johnny-cake, which may last two or three days, we commence their regular food of Indian meal and shorts, equal bulk. When a few days older, we add say five per cent. of ground scraps and a little bone meal to their food, and when two weeks old are feeding ten per cent. of scraps, and once a day we add a teacup full of bone meal to every pail full of feed.

Newly hatched ducklings in cold weather require constant access to warm brooders which they can enter and leave at pleasure, and also warm quarters outside of the brooder proper, which can usually be secured by the waste heat which escapes from it.
This furnishes opportunity for necessary exercise without exposure to the cold of our New England March weather. The best duck brooders are so constructed that the ducklings can nestle under pipes, or still better, under flat tanks of hot water, placed from four to six inches above them, depending upon the warmth of the water and the severity of the weather. They require brooders a shorter period than chickens and always inform us when they no longer need one, by ceasing to use it. They should however have access to sheltered sunny yards at this season of the year, which is of the utmost importance. They should be bedded down with chaff, short soft straw, sawdust, or similar material and kept dry. Wet or even moisture in their dwelling is always injurious and frequently fatal to them. When young they cannot withstand a shower, but must be driven into their house and kept there until it is over. The yards for each flock should be ample but need not be as large as many suppose. A hatching of 300 can be divided into two flocks of 150 each and placed in a house say 10 x 20 divided into two 10 x 10 rooms, each containing a brooder, and in front of this house give each flock a yard containing 1,000 square feet. This is better than a larger one and the ducklings will grow faster and fatten quicker than if allowed their liberty. When the weather becomes comparatively mild, they will thrive better and grow faster if not shut up at night but allowed the liberty of both house and yard, provided satisfactory arrangements can be made with their numerous nocturnal enemies.

For the first week or perhaps fortnight, ducklings should be fed all they will eat up clean, every two hours during the day, and if any food remains, it should be promptly and entirely removed. This insures a continual good appetite which is of the utmost importance. Water should be constantly before them to drink but for no other purpose. As
they become larger, less frequent feeding is necessary, and when three or four weeks old, four or five times a day is enough. In the longest days in summer, they should have their first meal as early and their last meal as late as they can see to eat, and three others at equal intervals between. To make even figures we might call the hours 4-30 and 8 a.m., 12 m., 4 and 7-30 p.m. Some excellent breeders give but four meals per day even at that season of the year, substituting 10 and 2—for 8, 12 and 4. Regularity is the main thing.

Where large numbers are raised, the best things to feed in or on, are boards say a foot or more wide, and any length, 5, 6, 8 or 10 feet, having an edge perhaps two or three inches high. Spread the food evenly on these boards, and give all the ducklings an equal chance that none may get more than necessary while others get none.

Too much importance cannot be attached to watering ducklings. Especially if their food is dry will they require more drink. They should be allowed all they desire, without stint, and it should not be withheld from them in the least, for then, when they are watered, they are so nearly choked that they drink to excess which is very injurious, but if they have constant access to it they will not drink too much. An acquaintance of ours lost nearly an entire seasons hatching and hundreds of dollars simply by ignorance on this one point.

In watering young ducklings care should be taken to prevent them from wetting their feathers. An ordinary atmospheric fountain, consisting of a straight tin or zinc pail, having a small hole in one side, near the top, and inverted in a shallow pan of four inches larger diameter, or even a flat dish like a saucer or baking plate, having something in the centre, as an inverted flower pot for instance, is a good arrangement, allowing them to introduce only their bills
into the water, and permitting a dozen or twenty to drink at the same time, for which reason we prefer it to a more expensive but less convenient fountain, which allows only two or three to drink at once.

As they grow older, especially in warm weather, this precaution is less important. If the feeding boards are placed nearly level, it is an excellent plan to fill them half full of water immediately after each feeding. The ducklings, with their broad bills, will clean the boards almost as thoroughly as a cat would clean a saucer which had just contained her supper of new milk. This allows every duckling an opportunity to quench its thirst and prevents so constant visits to the watering pans which must also be kept constantly full.

One of the most important things connected with duck culture, is to furnish ample shade in hot weather. This they must have, either natural or artificial and without it the business had better not be attempted. Remember this. Shade can be easily and cheaply provided by using old boards or pine boughs, etc. They should be placed two feet or more high and not touch the ground, but allow a free circulation of air under them.

Growing ducks, like old ones, should have access to ground oyster shells at all times, but should never be compelled to eat them by mixing with their food. During the last ten days previous to killing them, they must be fed with much judgment and skill, as the price depends entirely upon their condition when reaching market. During this time we feed no shorts, using clear Indian meal with fifteen per cent. or more of scraps and also bone meal as before stated, and giving them one ration of green food daily. More than this will make their flesh too yellow, and unlike chickens, ducks should be white meated. Our object is to fatten and harden them as much as possible. This highly concentrated grain food however, will
throw a duckling off its feet if persisted in too long, but if vigorous to commence with, they will stand it for ten days and possibly two weeks. The more bone meal then fed, the less liable is the rich food to injure them. Some eminently successful breeders increase the proportion of Indian meal gradually, commencing a week earlier, with 3-4 Indian meal and 1-4 shorts, then omitting the shorts entirely and proceeding in the manner already described. The ducklings should be kept as quiet as possible, avoiding all unnecessary excitement and fright. If restless or turbulent during the night, lanterns hung or placed in their quarters will usually keep them quiet. They should reach 4 1-2 or 5 pounds weight, each, when nine or ten weeks old, and should then be killed before pin feathers start, as otherwise they cannot well be marketed for several weeks, by which time they will have eaten up all the profits.

If you do not understand dressing ducks, you had better employ a professional picker to perform this business for you. We usually hire our pickers throughout the season paying them so much a month and their board, but the common price in the vicinity of Boston, for dressing ducks, is seven cents each. An expert will dress one in the highest style of the art in seven minutes or less, and better than a greenhorn would in seven hours. In a flock of 100 or 150 ducklings will be some that are too good to kill and should be reserved for breeders, while others may not be fat enough to kill. The flock needs to be assorted. For this purpose we use a wide light board or section of lath fence, two feet wide by ten or twelve long, having holes to admit the hands. We slowly drive some ducks into a corner of the yard and confine them there with this board, when we can easily select what we want, both to keep and to kill. As this performance at best frightens the entire flock more or less, and causes them to lose flesh by abstain-
ing from their usual quantity of food by reason of increased timidity, it is important that when going through the performance, we select all we require for picking during the entire day, and not subject the birds to the ordeal more frequently than necessary. Ducklings and ducks should always be handled by the neck and never by the wings or legs, or you will probably cripple them for life.

In killing ducks, use a slim keen knife and make a clean cut across the roof of the mouth. Let them "bleed out" a moment, then strike them a sharp blow on the head, or their head against something hard to produce unconsciousness, when the feathers should be instantly removed. The body feathers and down are quite valuable and should be saved, as they will nearly pay for picking. What pin feathers and down are not easily removed, must be shaved off using a broad razor-like knife which the professional picker keeps for this purpose. Ducks need not be drawn nor headed. Leave feathers on tips of wings, pick the body clean, half way down the neck and throw into ice water where they remain until placed in the packing boxes for shipment.

For further particulars concerning killing and marketing ducks and other poultry in summer, the reader is referred to pages 47 and 48 of our 18th annual circular, a copy of which is supposed to be in the possession of every civilized person now living, who is at all interested in poultry matters, and which we mail with much pleasure to any address upon receipt of a two cent stamp for postage.

Note.—Purchasers of this treatise can deduct the price of it, when ordering Duck Eggs of us.